

the Quail

Mount Diablo Audubon Society
P.O. Box 53, Walnut Creek, CA 94597-0053
www.diabloaudubon.com/index.php

Volume 54, Number 5

February 2009

Contra Costa County 2008 Big Year · Denise Wight

On February 5 Denise Wight will share her adventures as she completed her 2008 Contra Costa County Big Year. Why did she decide to do a county Big Year? Denise had left her job in San Francisco in October of 2007 so that she could spend time teaching and birding in the East Bay. When Bob Power sent out an e-mail inviting others to join him in an Alameda County Big Year, Denise decided that it might be fun to see how many species she could find in the county nearest and dearest to her heart, the county in which she grew up, Contra Costa. Denise points out that Contra Costa County is located on the Pacific Flyway and boasts many diverse climates and birding habitats. It stretches from the San Francisco Bay to the San Joaquin Delta at the western edge of the Central Valley and includes our beloved Mount Diablo and the Orinda hills where she played as a child.

Before committing to the idea of a Big Year, Denise checked the Contra Costa County page on Joe Morlan's website and found that Steve Glover held the record for the most birds seen in the county in one year, 255 bird species seen in 1998. Having

Meeting Schedule, The next general meeting of Mount

The next general meeting of Mount Diablo Audubon Society will be **Thursday, February 5**, in the Camellia Room of The Gardens at Heather Farm, Walnut Creek.

7:00 PM Birding Information 7:25 PM Announcements

7:40 PM Refreshments,* door prize, 8:05 PM Speaker: **Denise Wight**

* Please remember to bring a cup.

Thursday, March 5:

David Wyatt Bats of the Sutter Buttes



The Dusky Warbler, found by Emilie Strauss on October 9 at Point Isabel, was, by far, the best bird on Denise's 2008 Contra Costa Big Year list.

Photo by Bob Lewis

birded for 24 years, Denise knew which species she would most likely see, then guessed how many of the less likely species she might encounter. She set a personal goal of 225 species. She was planning to keep the count to herself, sharing it with a few birding friends, but Bob Lewis suggested that she follow Bob Power's lead and make the quest a friendly competition by inviting others to join and post their monthly results on a web page. Sharing sightings would be a great way to add new species, which might otherwise be missed. Hugh Harvey was one of the competitors who actually saw a species that Denise missed!

On April 20th, Denise joined Steve Glover for a Contra Costa County Big Day. They started in Tilden Regional Park at 4:45 AM, listening for owls, and ended their day at 8:40 PM at the Byron Airport. It was Denise's personal best birding day with 166 species. The best bird of the day was a Solitary Sandpiper, a species that she had not seen in Contra Costa County in 11 years.

Denise says. "Each day I'm in the field, my interest in learning more about birds

and everything associated with them, is refreshed." So, how did Denise do during her Big Year? Denise will share some of her birding adventures as well as insights into how the listing experience affected her birding. Join us and find out how many species Denise encountered.

BIRDING INFORMATION

Jay Holcomb, Executive Director of IBRRC, the International Bird Rescue Research Center in Fairfield, will bring us up to date on the ailing Brown Pelicans. Adult birds, thin, weak and disoriented, are appearing from Baja California to the State of Washington. There is some evidence that a neurotoxin, domoic acid, is connected to the problem but it does not seem to be the primary cause. IBRRC is working with the Dave Caron Lab at USC to investigate the causes. In addition, Jay will discuss the Introductory Wildlife Emergency Response classes available to the public during the months of February and March. Jay will give us a visual tour of the IBRRC facilities and discuss the wide range of emergency treatment provided by IBRRC.

Welcome New Members

Dana Gallo Pleasant Hill Arnold Gilbert Walnut Creek **Evelyn Ivey** Martinez Alan Krakauer Richmond Jerry and Nancy Mix Concord Dennis and Sharon Randall Alamo Mary and John Ricksen Walnut Creek **Devin Roberts** Oakland Ed Schoenberger Moraga George Shelby Lafayette Leslie Spellman Walnut Creek Danny Swicegood Benecia Stephen Taylor San Ramon

President's Corner

Jimm Edgar

Mount Diablo Audubon has been deeply involved, as I am sure many of you know, with the situation at Rossmoor where a permit has been issued to kill 50 Acorn Woodpeckers. In early November when we learned a permit had been issued, we immediately formed a task force to deal with the issue. MDAS member, Diana Granados was asked to chair the task force. I am deferring my "President's Corner" slot this month to have Diana bring you up to date on where we are currently (See Page 4).

2008 MDAS CBCs

The two MDAS 2008 Christmas Bird Counts are history. The east county count on December 17 had 32 counters in the field. We ended up with 136 species which is about average. A new species for the count was Eurasian Collared Dove which has been expanding its range. Though nonnative birds, they have established populations and are being counted on bird counts. A second new bird was Thayer's Gull, seen at Los Vaqueros Reservoir. Scott and Claudia Hein's group in Round Valley had some birds we have only seen once or twice in the nine years we have done the east count: Wrentit, Varied Thrush and Hairy Woodpecker. Mountain Bluebird has only been seen two out of the nine years. They were seen high on the Los Vagueros watershed land. We missed seeing a Gadwall for the first time ever.

The central county count on December 20 had 58 counters in the field and Continued on Page 8 »

Observations By Steve Glover

Submit Contra Costa County sightings to Steve Glover at countylines@sbcglobal.net or (925) 997-1112.

A **Greater White-fronted Goose** continued at Heather Farm, Walnut Creek through at least 11/7 (HH). A single **Snow Goose** was reported from the Albany Crescent on 11/10 (ES). A **Brant**, a species which has been found decidedly more often in recent years in the county, was at Meeker Slough near Point Isabel on 11/9 (DH). A **Cackling Goose** was at Newhall Park, Concord on 11/11 and two more were at Heather Farm Park on 11/27 (both HH). Cackling Geese have proven to be fairly common and reliably found in good numbers in east county, particularly around Holland and Palm tract.

A flock of 12 **Tundra Swans** was noted flying south around Point Isabel, Richmond on 11/15. The flock later returned and continued north (ES). This may be the first record for the Richmond area.

As many as five male **Eurasian Wigeon** were at the Albany Crescent on 11/7, a very high total for the East Bay (SD). Three **Blue-winged Teal** were at Contra Loma Reservoir near Antioch on 11/30 (PS). A male "Common" **Green-winged Teal** was photographed at McNabney Marsh on 11/11 (H&JK). This is just the second individual ever found in the county.

An estimated 4000 **Canvasbacks** at Clifton Court Forebay near Byron 11/21 and 11/27 was a very high count for the county (SG, DW). The resident male **Harlequin Duck** was seen at the Richmond Marina on 11/6 (JC) and again on 12/20 (RP). A male **Barrow's Goldeneye** was at Clifton Court Forebay near Byron on 11/21. Twelve more Barrow's were at Martinez Regional Shoreline on 11/24 (HH). A male **Hooded Merganser** was out-of-place on Clifton Court Forebay on 11/21 (SG).

A **Red-necked Grebe**, rare but annual in the county, was at Point Isabel, Richmond 11/22-25 (DQ, ES).

The **American Bittern** continued at the Antioch Municipal Reservoir on 12/1 (JH) and 12/8 (NB).

An adult **Bald Eagle** was at Los Vaqueros Reservoir on 11/9 (DW).

One or two **Lewis's Woodpeckers** were at the intersection of Marsh Creek Road and Camino Diablo 11/2 to at least 11/27 (FO,

mob). Up to five Lewis's were at the north end of Los Vaqueros Reservoir on 11/9 (DW). An apparently pure "Yellow-shafted" **Northern Flicker** was in Knightsen 11/20 (DE). A **Pileated Woodpecker** was near the Canyon School on Pinehurst Road on 12/1 (JL).

A **Blue-gray Gnatcatcher** was at Los Vaqueros Reservoir on 11/9 (DW).

Not entirely unexpected but always welcome was a cooperative **Townsend's Solitaire** at Jewel Lake in Tilden Regional Park 12/7-14 (JH, mob).

A **Sage Thrasher** was a nice find on Byron Hot Springs Road on 11/17 (HH, EL).

Nashville Warblers are virtually unknown in the county in winter but one in Richmond 12/14 may have been attempting to winter (fide DQ). A lingering **Yellow Warbler** was a surprise in Knightsen on 11/29 (DE).

Once unknown in the county but now annual, a Clay-colored Sparrow was at Point Isabel, Richmond on 11/24 (AD). A **Swamp Sparrow** made a very rare suburban appearance in Alamo 12/1-4 (JR). Single White-throated Sparrows were at Alamo 11/15-30 (JR), Point Isabel, Richmond 11/19-25 (BL, mob), San Ramon 11/20 (DW), and Walnut Creek 12/12-14 (LG). A well-watched Harris's Sparrow was at Point Isabel 11/16-24 (SD, mob). Judi Cooper, Al DeMartini, Nel Benningshoff, Sheila Dickie, Dick Erickson, Laura Gee, Steve Glover, Hugh Harvey, Derek Heins, Homer and Judy Kessler, Johan Langewis, Eugenia Larson, Bob Lewis, Frances Oliver, Roger Polk, Dave



Quady, Jean Richmond, Paul Schorr, Ellen

Simms, Emilie Strauss, Denise Wight

These two related species are often difficult to identify on their own, but when seen together are noticeably distinct. The call of the first is a series of three or more loud notes; that of the second is three or fewer—usually two—notes.

Unscramble these letters, or turn to Page 6 to learn more.

AEEEEGLLLORRSTWY EEEEGLLLLORSSSWY

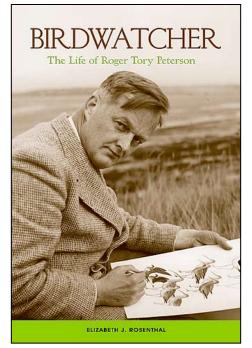
New Volunteer Coordinator

Moses de los Reyes steps in to succeed the estimable Shirley Ellis as Mount Diablo Audubon Society's Volunteer Coordinator. As a public official in Alameda County, he promotes economic development by administering business and workforce development programs in public works. As a community volunteer, he coordinates various community services activities such as food drives, community beautification and environmental conservation. He strongly believes in the great importance of volunteerism especially during the current gloomy economy. He believes that citizen service is key to nature conservation, especially at a time when many government agencies are suffering from severe budget cuts in performing their role of conserving our country's natural resources. He believes that: "We make a living by what we do, but we make a life by what we give." Volunteering for the conservation of birds and their habitats adds to the excellent quality of life that we all desire and need.

The job of the Volunteer Coordinator involves getting materials needed and procuring tables at environmental fairs, as well as recruiting volunteers and scheduling their assignments. The goal is conservation and education. The focus is to get the public to be interested in birds with the hope that this will lead them to be interested in conservation. We believe in the motto: "No habitat, no birds."

As more and more volunteers get involved, our individual contributions for the welfare of birds and their habitats become more important. We must always consider the welfare of the birds by our voluntary efforts. Moses admits that he cannot do the work alone. It requires the active participation of MDAS members to volunteer during community events. He appeals to the MDAS members to step up to the challenge of making a difference in the community. Let us volunteer for the sake of our birds and their habitats. No act of kindness to our birds and their habitat, no matter how small, will ever be wasted.

If you want to volunteer for upcoming events, please contact Moses at (925) 348-4271 or (510) 670-5243 or e-mail at moses_inc@comcast.net. Thank you very much for your valuable support.



It is likely that all birders are aware of Roger Tory Peterson and the Field Guides for which he is most noted. Can you name any other birder of the 20th or 21st Century of more prominence or esteem?

No one has done more to advance and popularize birdwatching than Roger Tory Peterson, artist and naturalist, who published his first field guide to the birds in 1934 when he was 26. Last year, on the 100th anniversary of his birth, a revised edition combining the earlier Eastern Birds and Western Birds volumes was published under the title *Peterson Field Guide to the Birds of North America*. Roger Tory Peterson will continue to be a name of prominence and esteem for all birders.

So you will be pleased to read the biography of Peterson written by Elizabeth J. Rosenthal: *Birdwatcher*. As you read, you will learn that, after his own devotion to birds, he was most ardent about teaching, which he did not only through his paintings, text, and lectures, but by his direct contact with youngsters. The author includes an entire chapter to present a number of now well-known people who can be grouped as protégés of Roger—she terms them "progeny." A few are Victor Emanuel, Pete Dunne, Kenn Kaufman, David Sibley, Edward O. Wilson.

The book relies heavily on clips from Roger's own writings and from interviews with those who knew him, beginning from his high-school and Junior Audubon Club

days in 1920. People—world-wide—who knew him invariably found him to be a congenial fellow who would want only to talk about birds.

Peterson's passion with conservation is made clear throughout this exhaustively researched and well-written narrative of his life. His early work with his friend Rachel Carson on the matter of DDT and the decline of the Osprey in coastal Connecticut, his role in the formation of the World Wildlife Fund, his work with the National Audubon Society, his international actions to guard some of the world's great ecosystems, such as Spain's Coto Doñana, demonstrate his influence in protecting the natural world.

You will find, on reading *Birdwatcher*, that Roger Tory Peterson was a man with a dual purpose—the welfare of birds and the pleasure of birdwatching.

More on the book and the author can be found at www.petersonbird.com.



Get Your Quail by E-mail

Those members of Mount Diablo Audubon Society who receive their copy of the *Quail* electronically have already read this article, because they got their copy a few days ago. They were also able to admire the colors of the Lange's Metalmark Butterfly and the Yellowlegs. If they chose, they could print out the issue to share with their family and neighbors. They all agree that this is a preferable, faster, and more environmentally sound method of distribution

You can join this group and help cut down on the cost of printing and mailing. Just send an e-mail to the *Quail* Editor at ellis.myers@earthlink.net with a copy to the Membership Chair at beewalk@comcast.net. This will assure that we have a valid e-mail address for you. You must also be sure that incoming mail from the Editor is not blocked by your spam filter.

Soon after it is mailed to members, the *Quail* is also posted on the MDAS web site at http://www.diabloaudubon.com/news-letter.php. After this month we will no longer send notices to those on the electronic subscriber list when this post has been made. You will already have received your copy in your e-mail inbox.

Thank you for giving this your attention.

Rossmoor Acorn Woodpecker Update

By Diana Granados

In the beginning there was a program at the Moraga Library with MDAS, and the non-releasable Acorn Woodpecker (ACWO) and I were on our way when we were waylaid by a media frenzy wanting a live ACWO. So our girl got her 15 minutes of fame and that was the start of MDAS being involved in the Rossmoor "let's shoot 50 Acorn Woodpeckers and solve our problem of their drilling holes in our buildings."

Nancy Wenninger, Conservation Chair, stepped into action on behalf of the ACWO and managed to arrange a meeting with the Maintenance Operations Department (MOD) and the two Rossmoor Mutuals [autonomous homeowners' associations] out for ACWO blood. Jenny Papka and I responded and what came out of the initial meeting was the Acorn Task Committee. Formed on November 19 with the approval of the MDAS Board this committee has worked to stop, eliminate and hold off the permit renewed by Rossmoor to kill 50 Acorn Woodpeckers.

According to Rossmoor this is an eight-year-old problem that culminated in a depredation permit issued in 2007 to kill 15 ACWO and a contract with USDA did just that. They killed 15 ACWO. What has turned out to be very poor science and very poor application of deterrents has made us extremely determined to eliminate the permit. Many Rossmoor residents were shocked to find out about this and through their efforts it was brought into the public awareness so that positive action could take place.

At this time we have received support from Congresswoman Tauscher's office; the United States Humane Society's Director of Urban Wildlife Problems Laura Simon; Dr. Walter Koenig of Cornell University; and locally, Give a Dam, a non-profit that managed to keep the beavers alive in Martinez; Gary Langham and Dan Taylor of Audubon California; Gary Bogue, syndicated columnist for CCTimes; Mike and Cecil Williams of Wild Birds Unlimited; Native Bird Connections; and the expertise of Dr. Eric Walters of UC Berkeley. If you are so inclined you might contact these organizations and individuals to thank them for their immediate willingness to put into action steps to forestall this tragedy.



"You can know the name of a bird in all the languages of the world, but when you're finished, you'll know absolutely nothing whatever about the bird. So let's look at the bird and see what it's doing, that's what counts. I learned very early the difference between knowing the name of something and knowing something."

Richard Feynman

With the 2007 killings under the original permit the problem escalated because, as I told the MOD and mutuals in the first meeting, the ACWO is a very complex species. Unfortunately my explanation was not accepted and with the coming holidays communication by e-mail was difficult. Thanks to the great amount of public pressure during this time, the committee and Audubon California were able to meet with a US Fish and Wildlife Service (USFWS) investigator and, with photographs and biological facts about ACWO, we were able to set in motion a need to evaluate this situation.

On January 7 the committee; MDAS president Jimm Edgar; our partners; USFWS investigator; Dr. Eric Walters; the MOD and Mutual 68 met to address the proposal the committee deems necessary to resolve the current situation. Fortunately, Dr. Walters presented a solid array of evidence as to why ACWO killing would fail and in the end cost Mutuals 68 and 59 even more then the costs and emotional upset they have experienced to this time. Our proposal stands at this time with Rossmoor permanently withdrawing the permit, installing and maintaining a deterrent to keep the ACWO off the buildings, having expert advice in the

placement of deterrents, education of the homeowners, and expert consultation on the placement and installation of granaries. Mutuals 68 and 59 must take the summary of Dr. Walters and the committee back to their individual Boards and vote on acceptance or not of the proposal. As our newsletter goes to print we will not have a final on this until the end of January. We hope that the USFWS investigator took very seriously the misinformation that was used for the permit back to the branch that could revoke this permit.

As to our Acorn Woodpecker and her 15 minutes of fame, did it garner stardom and fortune? As of this writing million dollar contracts are elusive but being the "poster girl" for MDAS has gone right to her head!

Please read Dr. Walters summary of our meeting (below) for a more detailed review of the Acorn Woodpecker.

Diana Granados is Founder/Director of Native Bird Connections, MDAS Board Member and Chair of the Acorn Wood-

Dr. Eric Walters Report

1) Acorn Woodpecker social groups do not have "leaders" or "lookouts". The basic social unit consists of cobreeder males (usually 1-5 males that may be fathers and sons or brothers) and joint-nesting females (usually 1-3 related females (mother, daughters or sisters). Along with the breeders are any number of helpers of both sexes. These helpers are related to both the breeder males and the breeder females so they don't participate in producing young. Helpers will feed young and help store acorns. A typical group might have 1–2 helper males and 1–2 helper females. These helpers are continuously looking for breeding vacancies and will leave their natal group if they find a vacancy somewhere. In other cases, the helpers may inherit their natal territory if their opposite sex parents die or disappear.

2) The estimate that there are 500 Acorn Woodpeckers in a 5-acre area seems grossly overestimated (over 30 times higher than the highest density ever recorded). In our 40-year study of Acorn Woodpeckers at the Hastings Reserve (prime oak woodland habitat with no development), typical territory size is approximately 15 acres. On average, groups consist of 4.4

adult members. So, in areas where Acorn Woodpeckers are found, we would expect 4.4 woodpeckers in a 15-acre area. On average, we have about 0.2 woodpeckers per acre over our entire 2,000 acre research area. The highest density ever recorded for the species is 3.1 per acre. So, even if one assumes Rossmoor represents the highest density, we would expect no more than 16 woodpeckers in 5 acres. Given the estimate of 500 woodpeckers in 5 acres, and our finding that the average group size is 4.4, this would mean that each group in the 5-acre area occupies an area of land 44 feet by 44 feet. This is not biologically feasible.

3) Lethally removing woodpeckers from the areas in question has no biological merit. We know from our own experimental work (see Hannon et al. 1985) that breeders that are displaced will be replaced in a very short period of time. In fact, in our experimental work, some breeders were replaced within 20 minutes. If only some of the birds in the social group are killed off, the remainder will remain and defend the territory. Even if all of the woodpeckers are removed from the territory, the territory has high value because of the storage facilities that are available (i.e. the granary holes made in the structures). Territories are highly sought after by Acorn Woodpeckers. They spend a majority of their time searching for reproductive vacancies. Some birds will fly over 3 miles in search of vacancies. Given the proximity of Rossmoor to areas of open space and available oak habitat, there is an endless source of new woodpeckers that will move into the Rossmoor area once any woodpeckers are lethally removed. As such, it will be a losing battle that will not reduce damage to Rossmoor structures.

4) My recommendation is that the shooting be stopped, that the structures be retrofitted with new materials that do not attract woodpeckers (or do not facilitate granary hole construction), that netting be used in the interim to keep woodpeckers off of the structures, and that an assessment of the woodpeckers be made that allows us to determine territorial demarcations. Once suitable woodpecker habitat has been identified around the mutuals and we have a better understanding of the number and social make-up of the woodpeckers involved, a mitigation plan can be put in place that tries to move the territorial boundary away from the structures

(e.g. using artificial granaries). In tandem, we need to assess where future problems may occur based on proximity to suitable woodpecker oak habitat. It will do us no good to stop the problem at one mutual to only have the woodpeckers move down the line to the next. And, none of these recommendations can be implemented in isolation. For example, if we merely erect artificial granaries near the mutuals, this will not stop woodpeckers from damaging mutuals further.

Man vs. Nature: A Very Bad Place for Condos By Nancy Wenninger

Many MDAS members and others have followed with deep concern the proposed shooting of up to 50 Acorn Woodpeckers. As many of you know, two Rossmoor homeowners' associations have secured a depredation permit from the US Fish & Wildlife Service in an attempt to prevent further structural damage being caused by the birds. An unknown number of woodpeckers have already been killed. MDAS and Native Bird Connections are working hard to persuade Rossmoor decision-makers to use science-based, non-lethal means to eliminate the problem.

This conflict is the inevitable result of a series of bad decisions. In 1976 the City of Walnut Creek approved an Environmental Impact Report for a conceptual plan for the completion of the Rossmoor community. The EIR listed a number of "unavoidable" adverse impacts to the environment which would occur if 3,500 additional units were allowed to be built by the developer as proposed. Of special interest is the following ecological impact: "Loss of approximately 300 acres of natural vegetation and wildlife habitat, including approximately 135 acres of oak woodland and riparian woodland, which are the most biologically productive of Tice Valley's plant communities. This will substantially reduce the plant and animal habitat value of the Tice Valley." Despite this very significant environmental impact, the build-out was approved.

In 1989 UDC Homes submitted its plan for 330 new condominiums in what would be the next-to-last development in Rossmoor. The plan called for massive grading—up to 90 feet deep in places—and the removal of 3,100 trees, mostly blue oak and buckeyes. Rossmoor residents,

MDAS, the Sierra Club, the California Native Plant Society and Friends of Tice Creek all united in their opposition to the destruction of nearly 36 acres of woodland. They requested that the City require a new or amended EIR to address these very significant impacts which had not previously been adequately considered. City staff and the Planning Commission agreed that the environmental impacts were significant and could not be avoided without a substantial reduction in the size of the project. The Planning Commission also determined that the destruction of trees and habitat was inconsistent with city policies, and they denied UDC's permit. However, UDC appealed to Walnut Creek's City Council.

On May 29, 1990, more than 200 Rossmoor residents and environmentalists attended a marathon meeting. According to an account in the Contra Costa Times, "Senior citizens booed and hissed for a good portion of the seven-hour hearing, and the City Clerk at one point called police officers to guard against any possible senior citizen disturbances."

Rossmoor officials argued persuasively that further delay or denial would have an adverse impact on the Golden Rain Foundation's capital funding and harm all Rossmoor residents. UDC had threatened to sue the city for as much as \$300 million if the project was denied. So, despite impassioned pleas on behalf of the trees, before adjournment at 3 AM the council voted 4-1 in favor of allowing the development to go forward and determined that the environmental impacts had been addressed in the 1976 report. One speaker spoke prophetically when he told the council a decision for the developer would haunt them "for years and years to come."

The Sierra Club filed a lawsuit challenging the City's decision, but a judge ultimately denied the claim. The condominiums were built, nestled into the remnants of the oak woodlands. Three-story vertical facades and the poor choice of a foam construction material created an attractive substitute for the granary trees which had been removed. The woodpeckers have responded in an entirely predictable way to the stressors in their environment. Hopefully we will be able to achieve a positive outcome for this conflict.

February

8	Sunday Lake Merritt/Arrowhead Marsh
11	Wednesday Grizzly Island
19	Thursday Sunol Regional Park
21	Saturday
25	Wednesday Mountain View Sanitary/McNabney Marsh
March	
4	Wednesday Walnut Creek Parks
19	Thursday San Leandro Reservoir
25	Wednesday Lake Lagunitas
28	Saturday Black Diamond Mines

• Sunday, February 8 Lake Merritt/Arrowhead Marsh

Leader: Ethan Chickering, 686-9231

Carpool leaves at 8 AM from El Nido Ranch Road. Meet at 8:30 AM in parking lot by Lake Merritt. Take SR 24 to Oakland and I-980, take Grand Avenue exit and turn left on Grand. Enter park by Children's Fairyland and follow road around to parking lot entrance on right between boathouse and aviary. After some birding here, we will catch the high tide at Arrowhead marsh before 10:30 AM. Hopefully the rising tide will flush out rails. Area is good for shorebirds and often loons on the estuary.

• Wednesday, February 11 Grizzly Island

Leader: Maury Stern, 284-5980

Carpool leaves at 7 AM from Sun Valley. Meet at 8:30 AM at Refuge headquarters. Take I-680 north, then I-80 east to SR12. Follow SR12 through Fairfield, watch for sign to Grizzly Island Refuge on right and follow road to headquarters. Entry fee for refuge. Watch for raptors and Shorteared Owls along road. The California Department of Fish and Game's Grizzly Island Wildlife Area is in the heart of the 84,000-acre Suisun Marsh, the largest contiguous estuarine marsh in the United States. Grizzly Island provides habitat for more than 200 species of birds and is home to a variety of threatened or endangered wildlife and plants. We may see the herd of Tule Elk. We may also bird at the Rush Ranch if time permits after finishing at Grizzly Island.

3 Thursday, February 19 Sunol Regional Park

Leader: Eugenia Larson, 806-0644

Carpool leaves at 8:15 AM from Sycamore Valley Road Park and Ride. Meet at 8:45 AM in the first parking lot on the left, Sunol Park. Go south on I-680 to Calaveras Road. Go left under I-680 and drive 4 miles south on Calaveras; turn left on Geary Road and go 2 miles to park. Entry fee required. Watch and listen for Wild Turkey along Geary Road. Golden Eagles and other raptors, Rufous-crowned Sparrows, American Dipper, and Canyon and Rock Wrens are possible. Bring lunch and a beverage.

② Saturday, February 21 Tomales Bay State Park

Leader: Maury Stern, 284-5980

Carpool leaves 7 AM from El Nido Ranch Road. Meet at 8:30 in the parking lot at Heart's Desire Beach in Tomales Bay State Park. After crossing the Richmond Bridge, follow US 101 north and take the first San Rafael exit. Go 2 blocks, turn left on 3rd Street. In San Anselmo turn right on Sir Francis Drake. Follow Sir Francis Drake Blvd. through Inverness. Just over the ridge, turn right onto Pierce Point Road. The park entrance is on the right. Entry fee required.

• Wednesday, February 25 Mountain View Sanitary/McNabney Marsh

Leader: Lynn Lakso, 932-6367

Meet at 9 AM at the Mt. View Sanitary Visitor Center. Exit from I-680 southbound at Arthur Road, turn left and go under the freeway. Exit I-680 northbound at Pacheco Blvd., turn right onto Arthur Road and go under the freeway. Arthur Road will turn left. At 0.4 miles turn sharp left onto Mountain View Sanitary's private road. Follow the road through the entry gate, alongside the freeway and through the tunnel under I-680. Park and sign-in at the Visitor Center. Trails may be muddy. Close-up looks at dabbling ducks; possibly bitterns and herons. If you wish, bring a lunch and explore Martinez shoreline on your own in the afternoon.

Field trips are open to members and non-members, beginners and advanced birders. Weather or other contingencies may require changes. For updates, visit the MDAS website at www. diabloaudubon.com/index/php. Bring a lunch and drink and join us during our midday break.

Category **1**: Easy, little or no walking, smooth paths

Category **2**: Moderate, one mile or more, possibly rough terrain

Category 3: Difficult, extensive walking on rough terrain

Carpool locations: **Sun Valley**—Southwest corner of the Sun Valley Mall parking lot at Willow Pass Road and Contra Costa Boulevard in Concord. **Sycamore Valley Road Park and Ride Lot**—Just south of Danville, exit I-680 at Sycamore Valley Road to the east; the Park and Ride lot is on the left. **El Nido Ranch Road**—Take the Acalanes Road/Upper Happy Valley Road exit off SR 24, west of Lafayette. El Nido Ranch Road is parallel to and north of the freeway. Park just east of the intersection with Acalanes Road and on the north side of El Nido Ranch Road.

Trip Reports

Limantour, November 15. Eighteen members went to Point Reyes Headquarters and the Limantour area on a day that reached the high 70s with blue skies and little wind. We saw 57 species with special views of Common Yellowthroat, Townsend's Warbler and Merlin. The Limantour area has been changed from previous visits. The Muddy Hollow Pond dike has been breached and

Continued on Page 7 »

Trip Reports

» Continued from Page 6
a new bridge has been built over the
water towards the beach, so that these
areas are now part of the estuary tides.
The work should be totally done in
about a month.

Maury Stern

Charleston Slough, November 22. Eight members enjoyed a warm, clear day at Charleston Slough in Mountain View, ending with a side trip to Radio Pond in Redwood Shores. 82 species were seen or heard including 10 species of shorebirds and 16 species of ducks. Highlights included two male Barrow's Goldeneye, three male Eurasian Wigeon, and 8 male Bluewinged Teal, the latter two species seen at both Charleston Slough and Radio Pond. Kim Kuska helped us pick out a Thayer's Gull at Radio Pond. Another interesting sighting was the large group of 30 or more Bonaparte's Gulls resting on a sand spit and flying around at close range at Charleston Slough. A quick walk along the edge of riparian habitat off of Charleston Road did not yield us a recently hotlined Northern Waterthrush. Eugenia K. Larson

Mountain View Sanitary/McNabney Marsh, November 24. Eight members and one guest enjoyed a nice, fall morning. Freeway noise was a distraction much of the time, but by the end of the morning 60 species were seen or heard. Five species of heron were seen including great views comparing adult and juvenile Black-crowned Night-heron. Numerous Northern Pintail, Northern Shoveler, and Green-winged Teal were seen at McNabney Marsh. One female Green-winged Teal cooperated nicely by showing the green speculum on her wing for all to see clearly. Sora was heard only, in spite of Paul Schorr's attempts to draw it out with his new BirdPod. As a brisk breeze picked up around noon, everyone decided to call it a Cheryl Abel

Niles/Quarry Lakes, December 11. Eight members and guests came to the field trip on a clear, calm day. We saw 72 species which included Acorn Woodpecker, which is actually unusual for the area. Highlights were good long looks at a Merlin. Two Wood Ducks were also fairly unusual for Alameda Creek. We also had Hooded Mergansers and five Cackling Geese.

Jimm Edgar

Rarity Chase, January 3. The original purpose of the trip was to relocate some of the rarities found on the recent East Bay Christmas bird counts. But there weren't any. In place of that Denise and I worked out a route that started in San Francisco and ended all the way down in Santa Cruz. Fourteen of us converged on Ferry Park in San Francisco, where the primary target was the Worm-eating Warbler. It was unusually cold and decidedly un-birdy but within an hour everyone had gotten good looks at it and we moved on to Fort Mason. We had visions of storming in and seeing the wintering Orchard Oriole in short order but it was another full hour before Bob Dunn spotted it in a bare tree. It took longer than we had hoped but we were 2 for 2. We stopped briefly at Crissy Field and quickly refound the Red-necked Grebe out on the bay. Next stop was a Tropical Kingbird in Half Moon Bay that sounded like it would be easy. It didn't take long to come to the conclusion that the bird wasn't where it was supposed to be and it was another hour before the bird flew overhead and landed far off in the distance. A few of us saw it through the scope before it disappeared again. We limped into Santa Cruz with high hopes of seeing the Cape May Warbler that was wintering in a suburban neighborhood. Another hour of rapidly dropping temperatures proved fruitless so we moved onto our last target bird: Rock Sandpiper. Despite finding some nice flocks of "rocky" shorebirds that bird was also a no-show. The consolation prize was a stunning sunset over the ocean, with some of the group even claiming to see the elusive "green flash." Despite the misses in the afternoon, the Worm-eating Warbler and Orchard Oriole were particularly nice birds and we managed to see about 90 species on the day. Steve Glover and Denise Wight Putah Creek, January 10. Last year after torrential rains the previous day we had to cancel the trip for fear of mud. This year we enjoyed sun, sun, sun, and afternoon temperatures in the 60s. 22 birders enjoyed great views of Osprey, Golden Eagle, Hooded and Common Merganser, Barrow's Goldeneye, Phainopepla, Golden-crowned Kinglet, and Dipper. Possibly worth noting were the huge numbers of three very common birds: Robin, Rubycrowned Kinglet, and Cedar Waxwing. There were no big surprises, but we saw most of the target birds very well and tallied 75 species in all. Fred Safier

Join the GBBC

Bird and nature fans throughout North America are invited to join tens of thousands of everyday bird watchers for the 12th annual Great Backyard Bird Count (GBBC), February 13-16, 2009.

A joint project of the Cornell Lab of Ornithology and the National Audubon Society, this free event is an opportunity for families, students, and people of all ages to discover the wonders of nature in backyards, schoolyards, and local parks, and, at the same time, make an important contribution to conservation.

'The Great Backyard Bird Count benefits both birds and people. It's a great example of citizen science: Anyone who can identify even a few species can contribute to the body of knowledge that is used to inform conservation efforts to protect birds and biodiversity," said Audubon Education VP, Judy Braus. Anyone can take part, from novice bird watchers to experts, by counting birds for as little as 15 minutes (or as long as they wish) on one or more days of the event and reporting their sightings online at www.birdcount.org. Participants can also explore what birds others are finding in their backyards—whether in their own neighborhood or thousands of miles away.

The data these "citizen scientists" collect help researchers understand bird population trends, information that is critical for effective conservation. Their efforts enable everyone to see what would otherwise be impossible: a comprehensive picture of where birds are in late winter and how their numbers and distribution compare with previous years. In 2008, participants submitted more than 85,000 checklists.

"With more than a decade of data now in hand, the GBBC has documented the fine-grained details of late-winter bird distributions better than any project in history, including some truly striking changes just over the past decade," said Cornell Lab of Ornithology director, John Fitzpatrick.

Each year, in addition to entering their tallies, participants submit thousands of digital images for the GBBC photo contest. Many are featured in the popular online gallery. Visit www.birdcount.org to learn more.

The Great Backyard Bird Count is made possible, in part, by support from Wild Birds Unlimited.

Antioch Dunes National Wildlife Refuge



Volunteer Monique Sierra of Antioch, a student at CSU Monterey Bay, plants a Naked-stem Buckwheat during a work party at the Sardis Unit of Antioch Dunes NWR in December.

the EarthTeam from nearby Deer Valley High School, Friends of the San Pablo Bay NWR, and Antioch Dunes docents. Captive-breeding programs are also in place to help the butterflies rebound. Last August, biologists released about 30 adult butterflies and some larvae at the refuge. These had been reared at Moorpark College in a joint program with the Urban Wildlands Group and the U.S. Fish and Wildlife Service.

A natural dynamic of moving sand is essential to maintain the ecology of the dunes, as moving sand opens areas for the establishment of seedling plants. Invasion of star thistle and other non-native vegetation stabilizes the sand-dune habitat and crowds out native dune plants, such as the buckwheat. The weeds must be removed to assure a healthy environment for the endangered native species.

Contra Costa Wallflower (Erysimum capitatum var. angustatum) grows naturally only in sand-dune habitat along the San Joaquin River east of Antioch. It is a member of the mustard family and shows bright yellow blooms from March to July or August. The wallflower is described as a monocarpic perennial, meaning that plants die after setting seed. Most plants set seed in the second year.

The Antioch Dunes Evening Primrose (Oenothera deltoides ssp. howellii) is a very pretty and interesting plant. In spring, large white flowers open in early evening and close by mid-morning. The flowers turn pink as they age. Pollination of this plant needs more scientific study. The only confirmed pollinator, the Antioch Sphecodogastra Bee, was last seen in 1982. Two native bee species, the Antioch Andrenid



The two endangered plants at the refuge were portrayed in 1979 on a four-stamp U.S. Postal commemorative series called "Endangered Flora". Also featured were Persistent Trillium, found only in northeast Georgia and neighboring South Carolina, and Hawaiian Wild Broad Bean, which occurs only on the eastern slopes of Mauna Loa and Mauna Kea.

Bee and the Yellow-banded Andrenid Bee. are known on the Refuge; both are listed as "Species of Concern."

Antioch Dunes National Wildlife Refuge totals 55 acres. Two parcels—the 41-acre Stamm Unit, a mostly flat and open area, and the smaller Sardis Unit with riparian features—are separated by Georgia-Pacific Gypsum's sheet-rock factory. Both units are at shoreline on the San Joaquin River. The refuge is part of the San Francisco Bay National Wildlife Complex, which also includes Don Edwards San Francisco Bay National Wildlife Refuge, Ellicott Slough National Wildlife Refuge, Farallon National Wildlife Refuge, Marin Islands National Wildlife Refuge, Salinas River National Wildlife Refuge, and San Pablo Bay National Wildlife Refuge.

If you would like to visit Antioch Dunes, or if you would like to aid in helping to save this habitat for the butterfly and endangered plants, contact the refuge office at 707-769-4200 for information.



Common Loon Gavia immer Birds of Golden Gate Park Joseph Mailliard • 1930

» Continued from Page 12 A Treat for the Birds

By Beverly Hawley

In winter, birds must seek a warmer locale or expend more energy to maintain the temperature in their small bodies. Those who stick around, or who arrive here from colder areas need a diet rich in fats and oils.

Filling feeders in any season brings the birds closer for us to enjoy, even though a more helpful strategy is to improve backyard habitat through landscaping, which provides food for a wider variety of birds, as well as nesting places and shelter. Let's do both.

At a Mount Diablo Audubon outreach event at the Moraga Library, each child was sent home with a packet of seed and a recipe for wild bird seed cookies, both the gift from Wild Birds Unlimited. You might want to try this modified recipe yourself for your backyard birds this winter.

Sift together:

- · 1 cup flour
- · ¼ tsp baking powder
- · ¼ cup sugar

Cut in with pastry blender until crumbly:

· 1/3 cup chilled lard, margarine or butter Mix in 1 egg

Add 1/3 cup or more Deluxe Blend bird seed Knead until smooth and chill overnight in wax paper or plastic bag. Roll out on floured surface to ¼-inch thickness, using a floured rolling pin. Cut into bird shapes. Brush with beaten egg whites (optional) and press more seed into the dough. Bake on ungreased cookie sheet for 12-15 minutes at 325° or until cookies are hard.

Do not add salt.

2008 MDAS CBCs

» Continued from Page 2

we dropped below the magic 150 species number for the first time in many years. We had 148 species. We could not get access to some land off of Waterfront Road and had almost no shorebirds this year. We missed seeing Moorhen for the first time in 27 years. Surf Scoters were seen by the group out in a boat. We only see them about half the time. A Rough-legged Hawk was seen and we have not had one for about 12 years. Again, Eurasian Collared Dove was seen for the first time.

> Jimm Edgar and Maury Stern, Co-compilers

Brown Pelicans · What's Going on?

By Laurie Pyne, International Bird Rescue Research Center

Disoriented, weak and emaciated Brown Pelicans are showing up in backyards, roadways, parking lots and other unusual places exhibiting uncharacteristic behaviors from Baja to Oregon. Large numbers of dead pelicans are also being reported. International Bird Rescue Research Center (IBRRC) has been receiving an overwhelming number of birds in both its northern and southern California centers for the last several weeks. No one knows precisely what is ailing these birds. The Dave Caron Laboratory at USC found 3 out of 6 samples from affected pelicans positive for domoic acid, and phytoplankton tests along the coast of California have found 5 out of 14 samples positive for low levels of domoic acid. More test results are pending and currently we are caring for more than 100 birds collectively in our centers, with new arrivals daily. The consensus of experts at this juncture is that domoic acid, a neurotoxin produced in red tides, is likely a secondary cause of these birds' affliction as it does not explain the entire spectrum of signs and symptoms these birds are displaying.



While it's not unusual to see weak and starving juveniles at this time of year, what is causing concern is that the majority of the pelicans affected by this mystery illness are breeding adults, tremendously valuable to the population. Last year at this time our Fairfield facility had two pelicans in house,

one adult and one juvenile. While they are coming in starving, food supply for them has been plentiful and is not the cause of their emaciation.

IBRRC has the only two state-of-theart pelican aviaries on the west coast of California. As soon as a bird is stable, it is moved outdoors to these specially designed enclosures to complete their rehabilitation partaking in all-they-caneat fish and gaining strength until staff is confident they are fully flighted and can be successfully returned to the wild.

IBRRC has several unique programs for people to help these pelicans return to the wild. A Pelican Partner is an adoption that includes a personal tour of our facility, watching the final exam and federal band placement on their bird and accompanying staff and participating in their bird's release. We also have a new Classroom Partner program which is a special adoption program for a class or school group that includes a presentation at our center and accompanying staff on their pelican's release.

Current updates on this crisis as well as more information about programs at IBRRC can be found at www.ibrrc.org or contact Laurie Pyne in Development at 707-207-0380, ext. 105.

Mighty Bluebirds from Little Acorns Grow

By Brian Murphy



The Walnut Creek Open Space Foundations Oak Habitat Restoration group has been planting oaks in their 2,700 acres of public open space for 15 years as there has never been any number of new oaks because of cattle grazing and deer browsing.

Three years ago the Oak Habitat Restoration group started planting oaks in North Lime Ridge, a vast grassland with few

grazed, so they had to protect the plantings with enclosures. The Wildlife Habitat Restoration group had already fenced a seasonal wetland where willows and cottonwood are now growing. The

oaks. This area is

green swath in the photo is the seasonal wetland with nice willow now growing.

In early fall of 2008 Western Bluebirds were all over the place. It was evident that the oak enclosures had been discovered by grassland perch-feeding birds and the locations of the enclosures have opened up many new areas for the birds to feed.

So this spring we will be starting a Western Bluebird nest-box trail as a result



of all the "new" habitat the birds have to feed in. The Bluebird boxes are made out of recycled building material, including parts of political sign materials from the recent election.

It's interesting to discover positive impacts something built to protect oak seedling from cattle has on the wildlife and bird populations.



Greater Yellowlegs · Tringa melanoleuca Lesser Yellowlegs · Tringa flavipes



This photo was taken by Len Blumin while with the Mount Diablo Audubon field trip to the Yolo Bypass Wildlife Area in November. Terry Colborn reported on this trip in the December-January *Quail*.

When seen together, differences between the two species can be distinguished. The Greater Yellowlegs' size is one third longer; its weight twice as much as the Lesser. The Lesser Yellowlegs' bill is all dark, shorter and straighter, while the Greater's bill is longer than its head, is slightly upturned, blunt-tipped, and may be grayish.

The Greater Yellowlegs swings its long bill from side to side to skim small animals from the surface of the water. Because this behavior is seldom seen in the Lesser Yellowlegs, you can use it to make an identification at a long distance.

The lengthy legs of these two species—relatively longer than those of most shorebirds—are adapted to their manner of feeding in the water, often wading out beyond where others go. Long bills usually accompany long legs for the same reason.

John James Audubon wrote: The flight of the Tell-tale Godwit, or "Great Yellow-Shank," as it is generally named in the Western Country, is swift, at times elevated, and, when necessary, sustained. They pass through the air with their necks and legs stretched to their full length, and roam over

the places which they select several times before they alight, emitting their well-known and easily imitated whistling notes, should any suspicious object be in sight, or if they are anxious to receive the answer of some of their own tribe that have already alighted. At such times, any person who can imitate their cries can easily cheek their flight, and in a few moments induce them to pass or to alight within shooting distance. This I have not unfrequently succeeded in doing, when they were, at the commencement of my calls, almost half a mile distant. Nay, I have sometimes seen them so gentle, that on my killing several in a flock, the rest would only remove a few yards. Audubon adds that "In general, however, these birds are thin and have a fishy taste."

Although Yellowlegs are no longer subject to the market hunting of the nineteenth and early twentieth centuries and populations are stable or increasing, pesticides, habitat destruction (logging) in their breeding ranges, oil, and heavy-metal contamination unquestionably pose threats.

In addition to tidal sloughs and mudflats, both species forage the edges of freshwater lakes and ponds. Lesser Yellowlegs occasionally swim, unusual among shorebirds. Lesser Yellowlegs are more likely to be seen in flocks than are Greater Yellowlegs.



Birdfood Sale · Suet Sale

February 3-22

All seed, peanuts, etc.

Activities at Wild Birds Unlimited:

February 14 • 11:00-3:00. Native Bird Connections will present on-going educational programs on Acorn Woodpeckers and the Rossmoor situation. Rossmoor is threatening to kill 50 Woodpeckers. Diana also will have a live Acorn Woodpecker.

The Great Backyard Bird Count is Friday-Monday, February 13–16. Wild Birds Unlimited and National Audubon Society are major sponsors of this event. You count birds in your backyard and report the results online or bring them to WBU. It's a great web site to investigate at www.birdsource.org/gbbc.

It's fascinating to watch the maps explode with bird reportings.

Bird Feeding Tips:

This fall and winter has not seen the Pine Siskins that we often have. We have had only 5-10 sighting reports. We have had many reports of Goldfinches at the feeders. The numbers of American and Lesser Goldfinches being seen are the largest in many years. Flocks are even larger than 2008 which was a good year for them.

Many people feed suet and it is a great way to attract birds to your backyard. Now there is something even better – it's called Bark Butter. It is similar to suet but, with different ingredients, it also attracts many non-suet eating birds. Robins, Bushtits, Wrens, Warblers, Sparrows, Juncos and all suet-eating birds are attracted to Bark Butter. Give it a try!



Mike and Cecil Williams
Wild Birds Unlimited

692 Contra Costa Blvd. Pleasant Hill, CA 94523, 925-798-0303 Visit us at www.wbupleasanthill.com

Ornithological Opportunities

The 2009 San Francisco Bay Flyway **Festival,** February 6–8, is based on the former Mare Island Naval Shipyard, the U.S. Navy's oldest installation in the Pacific and a National Historic Landmark. Mare Island is flanked by the Napa River to the east and San Pablo Bay to the west. This setting in combination with its rich maritime and naval history makes it an irresistible attraction for those intrigued with military history and eager to discover natural places. This 13th annual event promises more outings and programs than ever. Almost all are free. At the Wildlife Expo, Mount Diablo Audubon Society will have a table aimed at enticing children to have fun with nature. Details were not available at press time, so keep checking at www.sfbayflywayfestival.com, but be sure to save the dates and attend. Contact Phone: (707) 649-WING (9464).

California Duck Days, Davis, February 20–21. Come celebrate at California Duck Days, a wetlands festival in the heart of the Pacific Flyway. A gala reception for everyone interested in wetlands and wildlife will launch the festivities on Friday evening at the Davis Arts Center, from 5:30 to 7:30 PM. On Saturday the festival will feature one full day of field trips and workshops at the Yolo Wildlife Area Headquarters facility in South Davis. Complete schedule of events and registration information at www.yolobasin.org/events.cfm. All par-

ticipants should pre-register due to limited space on field trips and workshops.

The 13th annual 2009 San Diego Bird Festival will be held from March 5–8. Many of the field trips will net more than 100 observed species. Many of these trips are already nearly full. Keynote speaker will be David Allen Sibley, who will talk about the universal appeal of birds and the pleasures and challenges of creating a field guide to birds. David is the author and illustrator of the comprehensive The Sibley Guide to Birds. David will also lead a border birding trip and will conduct a bird drawing workshop. Info at: www.sandiegoaudubon.org/birdfest.htm.

Olympic BirdFest 2009, Sequim, Washington, April 3-5. Join the celebration at the Dungeness River Audubon Center, where you'll find a protected island bird sanctuary on the Strait of Juan de Fuca; wetlands, tide pools, rainforests, and lush river valleys. Marbled Murrelets, Rhinoceros Auklets, Harlequin Ducks, Black Oystercatchers, and Pygmy Owls will be sporting their finest spring plumage. Enjoy birding trips, boat tours, and a traditional salmon bake at the Jamestown S'Klallam Tribal Center. Check at www. olympicbirdfest.org or call 360-681-4076. Follow your BirdFest weekend with a three-day, two-night birding cruise of the spectacular San Juan Islands on April 5–7. e-mail info@olympicbirdfest.org.

the Ouail

is published 10 times a year by the

Mount Diablo Audubon Society

P.O. Box 53 • Walnut Creek, CA 94597-0053 (925) AUD-UBON • (925) 283-8266

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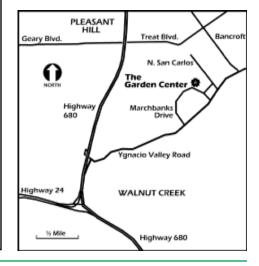
Moraga, CA 94556-1603 ellis.myers@earthlink.net

The Quail is printed on 30% post-consumer waste recycled paper. The deadline for the March issue is February 10.



The Garden Center

Mount Diablo Audubon Society meets on the first Thursday of each month, except July and August, in the Camellia Room of The Gardens at Heather Farms, 1540 Marchbanks Drive, Walnut Creek. Everyone is invited.,



MDAS MEMBERSHIP/RENEWAL APPLICATION Please enroll my family and me as a member of Mount Diablo Audubon Society for \$25 for one year. ☐ I'm enclosing an additional tax-deductible donation of \$____ ☐ For an additional \$20 (new NAS members only) or \$35 (returning members). please enroll me in the National Audubon Society to receive four quarterly issues of Audubon Magazine. Please send The Quail by: E-mail US mail Name Address___ City, State _____ Zip ____ Phone (____) _____ E-mail _____ Card Number: _____ Visa ____ MasterCard ____Expiration Date Name on Card: Please make your check payable to: MT. DIABLO AUDUBON SOCIETY and mail with this application to: Membership Chair, 1932 Golden Rain Road #4, Walnut Creek, CA 94595



TIME VALUE MAIL



Antioch Dunes Evening Primrose is one of three endangered species protected at Antioch Dunes National Wildlife Refuge. Mount Diablo watches from a distance.

Antioch Dunes NWR

A National Wildlife Refuge to protect a butterfly with a wingspan less than an inch-and-a-half? Yes, that's Antioch Dunes NWR, a hidden spot along the banks of the San Joaquin River. This was the first and only NWR established to protect endangered plants and insects. Under its aegis are the Lange's Metalmark Butterfly, the Contra Costa Wallflower and the Antioch Dunes Evening Primrose. Because of the sensitive habitat, the refuge is closed to the public, but each month, on the second Saturday, a free docent-led walking tour is offered at 10 AM. It is well worth a morning's outing.

One of the first species to be protected under the Endangered Species Act in 1976, Lange's Metalmark Butterfly depends on its host plant, the California native Naked-stem Buckwheat, a plant growing only along the sands of the river. It lays its eggs on the plant; the larvae feed on the leaves and stems of the buckwheat and form



Lange's Metalmark Butterfly, Apodemia mormo langei. USF&WS photo.

chrysalises on the plant. When the pupae emerge from the chrysalis as butterflies, they feed on the buckwheat's nectar. The adult butterflies emerge in August and September but live for only about 10 days (two weeks in captivity). This short flight period is little enough time to find a mate and begin the life cycle anew.

The butterflies are non-migratory, and as the sand dune habitat diminished with such uses as making bricks following the 1906 San Francisco earthquake, and with industrial plants sprawling over the area,



Naked-stem Buckwheat is the host plant for the protected Lange's Metalmark Butterfly. Stamm Unit, Antioch Dunes NWR.

the butterfly population dropped to near zero. In 2006, only 158 butterflies were counted, although more than 367 were counted in 2008, with a peak daily count of 131.

Aggressive efforts to recreate habitat have been under way for some years and have involved many volunteers, including the California Native Plant Society,

**Continued on Page 7"